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# Mass Transit

While our cities choke themselves with too many people, too many cars and too much smog, Honda offers an immediate solution/By John Lamm



It's 8:15 a.m. and you're on the Hollywood Freeway, or Chicago's Eisenhower Expressway, or backed up trying to get through the Lincoln Tunnel to Manhattan. Backed up behind a 1971 Ford Torino Brougham which is taking up 109.4 square feet of rolling freeway space. It's also sucking in enough semi-fresh air and pumping out enough carbon monoxide, nitrous oxides and hydrocarbons to give us the "smog alert" as a new national institution. The question is: Who has the right to occupy, alone, 109.4 sq. ft. of urban freeway, five days a week, when air pollution is choking people to death?

Of course, there is mass-transit. No doubt it works in places like New York, but there is no way to effectively blan-

ket the nation's population corridors with working systems before the end of the century, if then. Obviously, the simplest and quickest expedient is to re-parcel that 109 sq. ft. Remembering the dismal failures of recent "share-a-ride" campaigns, it follows that if we can't get more people into the same space in one vehicle, we can at least get more vehicles in that space. Enter the Honda 600 and, more particularly, the Honda 600 Coupe.

First, think of the Honda Coupe not as an individual car, but a type. Then consider the qualifications of a commuter vehicle. It has to be small and able to carry one adult in comfort, two adults being the ideal. It will have to be economical to run and maintain, with a low enough purchase price to allow the possibility of the driver also owning a "family" car in the suburbs. While the engine must be economical, it must still get the car to decent freeway speeds

(60-65 mph) with two aboard and pollute as little as possible.

To give you a quick idea of what a system of Honda-sized cars would do to alleviate the crowded conditions, here's what you can do with a mile of freeway:

Ford Torino . . . is 17.2 ft. long . . .

307 cars per mile bumper-to-bumper.

Volkswagen Beetle . . . is 13.2 ft. long

. . . 400 cars per mile bumper-to-bumper.

Honda Coupe . . . is 10.2 ft. long . . .

518 cars per mile bumper-to-bumper.

Figuring the Torino as your average size-vehicle, the U.S. would automatically improve road space almost 75% by switching to Honda cars.

Now you may be sitting there in Cleveland or Atlanta saying something like, "Yeah, but I wouldn't fit into that thing and it's probably some Japanese piece of junk anyway." And you'd be wrong. In addition to giving a lot of ge-

ography back to the people, the Honda 600 Coupe performs within the parameters of our intelligent commuter car.

Here's what a real modern commuter car looks like:

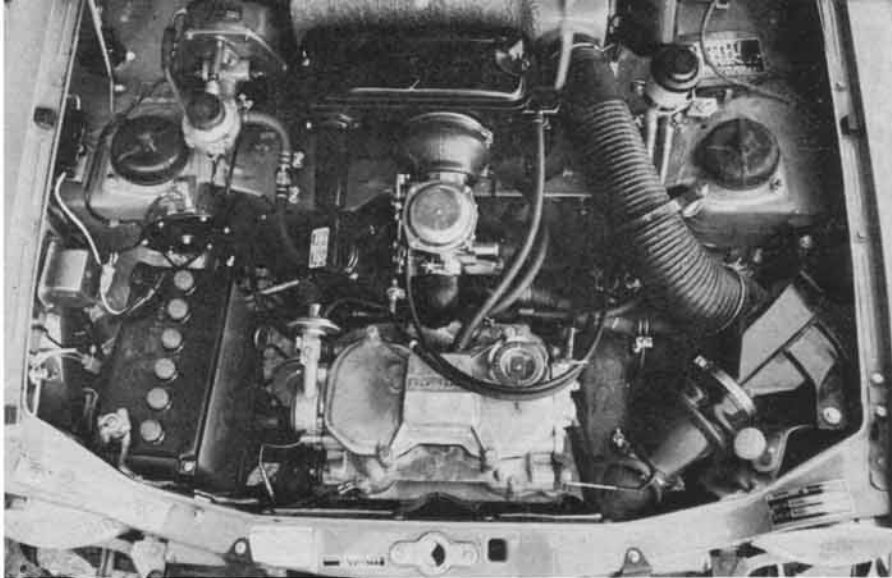
	Honda Coupe	VW	Maverick 2-Dr.	Torino
Wheel-base	78.7 ins.	94.5 ins.	103 ins.	117 ins.
Length	122.8 ins.	158.6 ins.	179.4 ins.	206.2 ins.
Height	50.4 ins.	59.1 ins.	52.6 ins.	52.0 ins.
Width	51 ins.	61 ins.	70.6 ins.	76.8 ins.
Weight	1,312 lbs.	1,807 lbs.	2,586 lbs.	3,448 lbs.

With only 122.8 inches, Honda couldn't waste any space and expect passengers to be the least bit comfortable, so they went to front-wheel-drive and, like the original mini-car, the Morris Mini-Minor, they wrapped the whole engine, transmission, differential unit in one piece with a common crankcase. This compact drive unit, plus the lack of a drive-shaft and rear end assembly made for maximum space inside. They then put a wheel on each corner and wrapped the affair in a rigid unitized body.

A close examination will show a similarity between the car's overhead cam/valve arrangement and that of a 350 Honda bike engine, but that's it. However, like the motorcycle, it is an air-cooled, two-cylinder engine stuck far out front, to take advantage of all cool air and, unfortunately, be in a bad position in any collision. Bore and stroke are 2.91 x 2.74 inches working out to 36.5 cubic inches. It pumps out 36 horsepower, one for each cubic inch, at a screaming 6000 rpm. The engine can go easily to that figure because of the overhead cam, a lot of aluminum in the reciprocating parts, and a roller bearing crankshaft. Torque is rated at 31.8 lbs.-ft. at 4000 rpm and there's absolutely no doubt when it falls off. Regular fuel feeds through a Keihin variable venturi carburetor, somewhat similar to an SU or Amal with a slide or piston and an enrichment needle allowing for precise air and fuel flow changes at different throttle settings.

The transmission is a four-speed with a shift handle that sprouts not from the floor, but just below the dash. The shift pattern is still the familiar "H," reverse being an interesting twist to the left and down.

Honda's front suspension has two parallel arms on the bottom, and a modified MacPherson strut at the top, both attached to the wheel hub. The halfshaft then runs through the hub to drive the front wheels. In back, suspension is typical of that for front-wheel-drive arrangements, with a solid axle, semi-elliptic springs, and tube shocks. Tires all around are Dunlop 145 SR 10 radials. The brakes up front are servo-assist discs and the ones in back are drums. Even with the car's light weight, the tire/brake combination



Above: The Honda car's air-cooled, two-cylinder engine has 36 hp. Left: Interior is spacious enough to easily carry two consenting adults. Below: Coupe's rear seat folds forward for extra luggage or area can become a small greenhouse.



could only stop the car from 60 mph in 137.7 ft., a very average distance. Steering is rack and pinion, requiring 3.1 turns lock-to-lock, and a 32.2-ft. turning diameter, roughly the same as a Subaru sedan.

Climbing inside, one thing strikes you. The roof. But it is a matter of technique and once learned is easier than with at least two other imports we can think of. Inside, the impressive amount of interior space isn't immediately noticeable. The car is so small you feel you must be cramped, but then you notice, surprisingly, that you can still shift and work the pedals easily, and yet drive in an almost full arms-out position. Instrumentation in the Coupe is sparse, but adequate in this car, with a speedometer, tachometer, and fuel gauge. Other engine functions are monitored by idiot lights. There is one additional nice touch. In the ceiling, between driver and front passenger is a panel with a switch for the interior light and

another for a swivel spotlight, which is just about the right size and intensity for reading freeway maps.

Living with a car is another subject close to the heart of each commuter, since he sits each day, mesmerized by the taillights in front of him. First of all, forget automatic transmission on this one, there just isn't the power. The four-speed is easy to use, once it's learned. You'll find little noise insulation in the car and that engine isn't that far ahead of the driver, so he has to live with a buzz. Surprisingly, it's not that bad during acceleration, but when holding a constant speed, it just drones on and on and on. It takes a loud radio to nullify it.

We set low cost of purchase, use, and maintenance as criteria for a commuter. The Honda, at \$1,630 base, fits between its mechanical twin, the Honda N600 (\$1,495) and Fiat's remarkable front-wheel-drive 128 (\$1,795). Relative

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# Mass Transit

to the cost of buying that 109.4 square feet of Torino at about \$3,300 the Honda is way out front. Honda claims mileage of "up to 40 miles per gallon," yet the best we could do in city/free-way traffic was 35 mpg. Still, it's far and away ahead of any domestic. Now for the real surprise. Honda suggests that owners change oil every 3,000 miles, the plugs every 9,000. But over a 12 month, 12,000-mile cycle, that cost comes to only about \$100 at the dealer. If you're only moderately handy with tools, you could tune the car yourself and drop the cost to about \$25. Compare that with the average \$200 cost of maintaining the Torino at the dealer over the 12 months or 12,000 miles at its recommended 6,000-mile increments.

If we could establish our Honda commuter system for a large city, it would be, with an automatic-type transmission of some sort and a bit of noise insulation, an ideal car. The present engine isn't the answer to smog, but it's small enough to cut the volume of pollutants measurably. Drop in a small, desmogged Wankel and you should be able to further reduce air pollution. We're not saying a fleet of Hondas would be the American cities final salvation, but it offers an immediate salve for strangling urban centers. /MT



Above: Rear view of Honda makes it easy to visualize interior space-to-exterior size ratio achieved. Locking rear flip-up window simplifies loading of coupe. Below: Honda's all-steel unitized body is surprisingly tight and rattle-free.

## HONDA COUPE SPECIFICATIONS

Engine	Air-cooled, single overhead cam two-cylinder
Bore & Stroke — ins.	2.91 x 2.74
Displacement — cu. in.	36.5
HP @ RPM	36 @ 6000
Torque: lbs.-ft. @ rpm	31.8 @ 4000
Compression Ratio	8.5:1
Carburetion	Keihin 1-bbl.
Transmission	4-speed
Final Drive Ratio	6.23:1
Steering Type	Rack and pinion
Steering Ratio	17.4:1
Turning Diameter (Curb-to-curb-ft.)	32.2
Wheel Turns (lock-to-lock)	3.1
Tire Size	145 SR 10
Brakes	Servo-assist discs/front Drums/rear
Front Suspension	Indept., lower parallel arms, MacPherson strut, anti-roll bar
Rear Suspension	Solid beam, semi-elliptic springs, tube shocks
Body/Frame Construction	Unitized

Wheelbase — ins.	78.7
Overall Length — ins.	122.8
Width — ins.	51
Height — ins.	50.4
Front Track — ins.	45.9
Rear Track — ins.	44.3
Curb Weight — lbs.	1312
Fuel Capacity — gals.	6.9
Oil Capacity — qts.	3.2

	Stock Honda Coupe	Modified Honda Coupe
<b>PERFORMANCE</b>		
Acceleration		
0-30 mph	6.5	6.0
0-45 mph	13.5	11.4
0-60 mph	27.5	20.3
Standing Start ¼-mile		
Mph	58.78	61.3
Elapsed time	22.59	20.54
Passing speeds		
40-60 mph	16.8	12.7

<b>Speeds in gears*</b>		
1st . . . mph @ rpm	24.8 @ 6000	28.1 @ 7000
2nd . . . mph @ rpm	39.3 @ 6000	45.0 @ 7000
3rd . . . mph @ rpm	59.0 @ 6000	64.2 @ 7000
4th . . . mph @ rpm	65.0 @ 5000 (Est.)	70.0 @ 5000 (Est.)
Mph per 1000 rpm (in top gear)	13.1	14
<b>Stopping distances</b>		
From 30 mph	32.7 ft.	37.7 ft.
From 60 mph	137.7 ft.	140.3 ft.
Gas mileage	35 mpg	N.A.
<b>Cornering Forces (200 ft. circle)</b>		
rt. -	.712g	rt. - .838g
lft. -	.726g	lft. - .840g

\*Speeds in gears are at shift points (limited by the length of track) and do not represent maximum speeds.

